

Post-doctoral position in Laser Ablation of Organic Materials and Infrared Spectroscopy

Record number : OPR-802

Overview

RESEARCH DIRECTION

Jan Dubowski, Professeur - Department of
Electrical and Computer Engineering

INFORMATION

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RESEARCH CO-DIRECTION

Khalid Moumanis, Agent à la recherche -
Interdisciplinary Institute for
Technological Innovation

INFORMATION

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ADMINISTRATIVE UNIT(S)

Faculté de génie
Département de génie électrique et de
génie informatique
Institut interdisciplinaire d'innovation
technologique (3IT)

LEVEL(S)

Stage postdoctoral

LOCATION(S)

3IT - Institut interdisciplinaire d'innovation
technologique

Project Description

The Laboratory for Quantum Semiconductors and Photon-based BioNanotechnology of the Université de Sherbrooke Interdisciplinary Institute for Technological Innovation (3IT; <https://www.usherbrooke.ca/3it/en>) is involved in interdisciplinary research focused on the development of practical methods of photonic detection of biomolecules in biological fluids and in solid samples. The 3IT institute belongs to one of the five International Research Laboratories of the Centre national de la recherche scientifique (<https://northamerica.cnrs.fr/>).

One of the directions of our ongoing research concerns development of an innovative laser ablation method for fabrication of bacterial samples designed for the infrared spectroscopy analysis.

We are seeking a postdoctoral research fellow experienced in laser ablation of solids and organic samples. Applicants should have strong optics experience and working knowledge of operating high-power UV lasers (excimers, high-harmonic IR). The candidate should have background in the experimental solid-state physics, chemistry or biotechnology. Previous experience in Fourier Transform Infrared (FTIR) spectroscopy and data analysis would be an asset. Applicants should demonstrate independence and a broad interest in all aspects of the project development from the concept level to the advancement of science and technology transfer. The innovative character of the project and our interaction with industrial partners offers the opportunity of a career in research commercialization and business development.

The position is open from May 1, 2023, or as soon as a suitable candidate has been identified.

Starting salary is at CDN\$40,000 per annum, and it is negotiable depending on the candidate's experience. Please note that this offer is for candidates who received their PhD in 2018 or more recently (maximum 5 years from receiving a PhD diploma to the hiring date is allowed). A one-year appointment will be offered initially, with the possibility of extending the contract for up to 3 years.

Discipline(s) by sector

Sciences naturelles et génie

Génie électrique et génie électronique

Funding offered

Yes

\$ 40 000

Partner(s)

Université Hassan II de Casablanca,
Maroc

The last update was on 12 March 2024. The University reserves the right to modify its projects without notice.